

CENTRALIZED CELL HOMING AND LOAD BALANCING IN A BASE STATION CONTROLLER

ABSTRACT OF THE DISCLOSURE

A base station controller (BSC) of a radio or wireless telecommunications
5 network base station includes a director. A BSC includes multiple central processing
units (CPUs), with each CPU running a call-processing application for one or more
connections. The director is a logical entity that intercepts wireless call-setup signaling
and assigns each corresponding connection to a CPU according to a centralized load-
balancing algorithm. The centralized load-balancing algorithm distributes connections to
10 less loaded CPUs to i) prevent individual CPUs from overloading, ii) utilize otherwise
unused system resources, and iii) increase overall system performance. The director
hosts cell components that manage code division multiple access (CDMA) downlink
spreading codes for a base station, providing centralized allocation of spreading codes by
the base station.